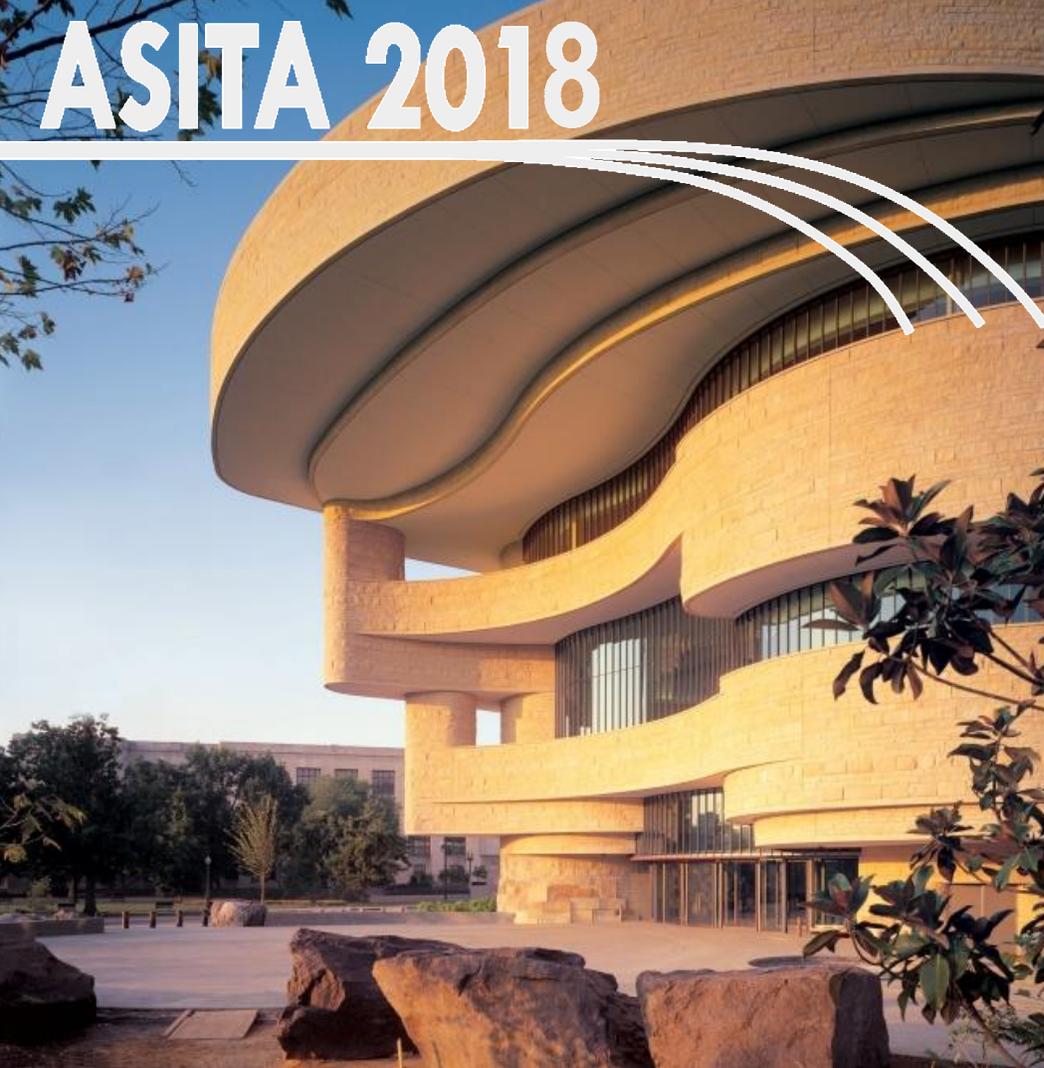


# ASITA 2018



**ADVANCES IN STABLE  
ISOTOPE TECHNIQUES  
AND APPLICATIONS**

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**JUNE 4 - 6, 2018**

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**HOSTED BY:**

**Smithsonian Museum  
Conservation Institute  
at the National  
Museum of the  
American Indian**

# AWARDS



**Smithsonian Institution**

*The Moire Anne Wadleigh Student Prize in Stable Isotope Science* is awarded to the student presenting the best paper or poster at the Advances in Stable Isotope Techniques and Applications (ASITA) Conference, as determined by an independent panel of judges convened by the conference organizers.

## THE MOIRE ANNE WADLEIGH PRIZE

### In Stable Isotope Science

This prize is given in memory of Professor Moire Anne Wadleigh, a prominent member of the Canadian stable isotope community, and co-organizer of the 2002 Canadian CF-IRMS Workshop at Memorial University. Dr. Wadleigh contributed an enormous amount to our science in her all too short life. Her MSc thesis research on strontium isotopes in rivers, conducted at the University of Ottawa, remains the first and critical reference on this topic. Her PhD research at McMaster on the isotopic behaviour of sulphate in rain, and the environment more generally, was years ahead of its time in helping us to track and understand the movement of these compounds in the atmosphere. Dr. Wadleigh's post-doctoral research on the oxygen-isotope composition of ancient oceans, and its implications for Earth's evolution, remains central to one of geochemistry's most important controversies. Her work as a Research Associate at *The University of Western Ontario* on fluid-flow in the continental crust provided new ways of understanding these systems. But her most enduring scientific contributions are, and will be, her pioneering research conducted at Memorial University from 1991 to 2004, in collaboration with her staff and students.

Professor Wadleigh had a fascination with the behaviour of sulphate and nitrate in the atmosphere. She studied these compounds in rain, in aerosols, on lichens – wherever they might be had – to understand their origin and their impact on Earth. At the time of her death, she was actively engaged in the Canadian and International SOLAS projects to determine the connection between ocean uptake of greenhouse gases and natural emissions of sulphur-bearing compounds. During all of these investigations, Dr. Wadleigh worked very closely with her graduate students. She gave them her time and advice without limit, and she gave them room to evolve their own ideas as young scholars.

It is therefore fitting that we honour her memory in this way.

*The Moire Anne Wadleigh Student Prize* was established and endowed by FJ Longstaffe in 2005. Additional donations from the 14<sup>th</sup> Canadian CF-IRMS Workshop, jointly hosted by the University of Saskatchewan and Environment Canada in Saskatoon in 2008, the 15<sup>th</sup> Canadian CF-IRMS Workshop, at Cornell University in 2009, and ASITA 2016, in Philadelphia in 2016 have further strengthened the Prize.

Fred J. Longstaffe  
The University of Western Ontario  
January 31, 2018

## Previous Winners of Moire Anne Wadleigh Student Prize in Stable Isotope Science

**2005 – Sam Russell, MSc candidate**, The University of Western Ontario, for “*Airlock laser fluorination triple oxygen isotope analysis of clays and meteorites*”. At the 11<sup>th</sup> Canadian CF-IRMS Workshop, The University of Western Ontario, August 14-17, 2005.

**2006 – Michelle Chartrand, PhD candidate**, University of Toronto, for “*Stable Carbon Isotope Analysis of  $\alpha$ -Hexachlorocyclohexane: potential for source fingerprinting*”. At the 12<sup>th</sup> Canadian CF-IRMS Workshop, University of Victoria, June 12-14, 2006.

**2007 – Tim Jardine, PhD candidate**, University of New Brunswick, for “*On-line organic hydrogen isotope analysis: anchors, exchangeability and equilibration*”. At the 13<sup>th</sup> Canadian CF-IRMS Workshop, University of New Brunswick, June 24-27, 2007.

**2008 – Sam Russell, PhD candidate**, The University of Western Ontario, for “*Online  $\delta^{15}\text{N}$ ,  $\delta^{18}\text{O}$  and  $\delta^{17}\text{O}$  measurements of dissolved nitrate by chemical reduction and catalytic decomposition*.” At the 14<sup>th</sup> Canadian CF-IRMS Workshop, University of Saskatchewan, June 15-18, 2008.

**2009 – Ying Zhang, PhD candidate**, Cornell University, for “*Uniform isotopic standards for gas chromatography combustion isotope ratio mass spectrometry of steroids*.” At the 15<sup>th</sup> Canadian CF-IRMS Workshop, Cornell University, Ithaca, New York, USA, June 28-July 1, 2009.

**2010 – Not Awarded**

**2011 – Courtney V. Holden, BSc (Honors) candidate**, Queen’s University, for “*Isotopic analysis of fish otoliths: Insights into the thermal history and stock origin of the American eel (*Anguilla rostrata*)*.” At the 17<sup>th</sup> ASITA Conference, Queen’s University, June 12-15, 2011.

**2012 – Not Awarded**

**2013 – Anthony J. Menicucci, PhD candidate**, University of California Davis, for “*Microfluorination: a new approach for analyzing quartz and biogenic silica  $\delta^{18}\text{O}$  via continuous flow mass spectrometry*.” At the 19<sup>th</sup> ASITA Conference, University of Calgary, June 02-05, 2013.

**2014 – Robert Walsh, PhD candidate**, University of California Davis, for the oral presentation “*Compound-specific  $\delta^{13}\text{C}$  and  $\delta^{15}\text{N}$  analysis of amino acids: a rapid, chloroformate-based method for biological studies*” and the poster “*Data from over 100 isotopic studies of amino acid carbon and nitrogen: Emerging patterns and trends*.” At the 20<sup>th</sup> ASITA Conference, University of California, Davis, June 15-18, 2014.

**2015 – Christopher James Spencer, MSc candidate**, McMaster University, for the oral presentation “*Development and final-stage testing of McMaster’s  $\text{CO}_2$  Clumped Isotope Facility*.” At the 21<sup>st</sup> ASITA Conference, University of Ottawa, June 27-30, 2015.

**2016 – Andrew Barber, PhD candidate**, Concordia University, for the poster presentation “*Measuring the  $\delta^{13}\text{C}$  of Dissolved Organic Carbon in Canada’s Eastern Coastal Waters*.” At the 22<sup>nd</sup> ASITA Conference, The Academy of Natural Sciences, Philadelphia, June 19-21, 2016.

**2017 – Anic Imfeld, PhD candidate**, Concordia University, for the poster presentation “*Environmental Forensics: Using Compound-Specific Stable Carbon Isotope Analysis to Track Petroleum Contamination*.” At the 23<sup>rd</sup> ASITA Conference, University of Waterloo, Waterloo, June 24-27, 2017.